

L 52965-65

ACCESSION NR: AP5010519

is violated only in five of 31 cases. Four out of the five violations are in compounds of carbon, and this is apparently connected with very complicated spatial configuration of these molecules. The measurement procedure and a detailed discussion of the results will be published later. Orig. art. has: 3 tables.

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut (Moscow Engineering Physics Institute)

SUBMITTED: 26Dec64

ENCL: 00

SUB CODE: NP

NR REF SOV: 001

OTHER: 008

Card 2/2

L 52966-65 EWT(11) Feb DIAAP

ACCESSION NR: AF5010520

UR/0056/65/048/004/1199/1199

AUTHOR: Bobrov, V. D.; Varlamov, V. G.; Grashin, Yu. M.; Dolgonosin, B. A.;
Kirillov-Ugryumov, V. G.; Roganov, V. B.; Samoylov, A. V.; Somov, S. V.

TITLE: Capture of negative muons by pure chromium and nickel isotopes

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 4, 1965, 1199-1199

TOPIC TAGS: muon, chromium, nickel, muon capture, proton subshell, neutron subshell, muon lifetime, capture rate

ABSTRACT: The authors point out that data on muon capture by nuclei can be used as a tool for the study of the structure of the nucleus, and have therefore investigated muon capture by nuclei with closed neutron or proton subshells, in the form of isotopes of Cr with mass numbers 50, 52, 53, and 54 (Cr⁵² has a closed neutron subshell) and Ni isotopes with mass numbers 58, 60, and 62 (which have a closed proton subshell). The isotope enrichment runs from 78.5 to 99.5%. The muon beam from the OIYaI (Joint Institute of Nuclear Research) synchrocyclotron was used for the experiments. The total muon capture probability was determined by measuring

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the lifetimes of the muons on the K orbit of the corresponding atom. The experimental results by processing the corresponding time distributions with a computer are,

Nucleus:	Cr ⁵⁴	Cr ⁵⁶	Cr ⁵⁸	Cr ⁶⁰	Ni ⁵⁸	Ni ⁶⁰	Ni ⁶²
Capture rate 10 ⁵ sec	38.25± ±0.50	34.52± ±0.47	32.07± ±0.45	30.57± ±0.42	61.10± ±1.05	55.62± ±0.97	47.16± ±0.85

A detailed discussion of the results and of the measurement procedure will be published later. Orig. art. has: 1 table.

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut (Moscow Engineering Physics Institute)

SUBMITTED: 26Dec64

ENCL: 00

SUB CODE: NP

NR REF SOV: 000

OTHER: 000

Card 2/2

L 24363-66 EWT(1)/EWP(e)/EWT(m)/EEC(k)-2/EWP(t) IJP(c) JD/WH
 ACC NR: AP6008116 SOURCE CODE: UR/0139/66/000/001/0142/0148

AUTHORS: Nekrasov, M. M.; Samoylov, A. V. 57
 B

ORG: Kiev Polytechnic Institute (Kievskiy politekhnicheskiy institut)

TITLE: Investigation of the piezoelectric constants of polycrystalline ferroelectrics of the barium-titanate type 2/

SOURCE: IVUZ. Fizika, no. 1, 1966, 142-148 27 15

TOPIC TAGS: barium titanate, ferroelectric material, piezoelectric modulus, ternary alloy, temperature dependence

ABSTRACT: The measurements were made on polycrystalline samples of rectangular form, polarized in the direction of the z axis. The sample technology preparation was described elsewhere (FTT v. 2, No. 8, 1681, 1960). The alternating field was applied in the same direction. The resonance and antiresonance frequencies of the longitudinal oscillations excited in the samples were measured with the aid of a heterodyne wave meter. The measurements were made by both static and 2

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ACC NR: AP6008116

dynamic methods, with the piezoelectric moduli perpendicular to the polarization axis (d_{31}) determined from measurements of 100 samples of 30 compositions. The greatest piezoelectric modulus was found to be possessed by the systems $Ba(Ti, Zr, Sn)_3O_3$ and $Ba(Ti, Si, Sn)_3O_3$.

All ternary systems with zirconium and silicon were found to possess similar piezoelectric properties, zirconium producing a somewhat larger piezoelectric effect than silicon. The strongest piezoelectric properties were found to be when the percentages of Ti, Zr, and Sn were 0.85, 0.11, and 0.04 respectively for the zirconium and 0.9, 0.06, and 0.04 for the silicon. The piezomoduli d_{31} for the ternary systems were larger than for barium titanate. No noticeable difference was observed between the results of static and dynamic measurements. The static measurements were made on 15 systems of polycrystalline ferroelectrics with 55 different compositions. In addition, the temperature dependence of the piezoelectric modulus d_{31} on the ceramic sintering temperature was investigated, and was found to increase with increasing sintering temperature, up to about 1450C,

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ACC NR: AP6008116

after which no further increase occurred. The temperature of the annealing of the ceramic also exerts a strong influence, since it affects the character of the crystalline phase. Orig. art. has: 4 figures, 2 tables, and 1 formula.

SUB CODE: 20/ SUBM DATE: 22Nov63/ ORIG REF: 004/ OTH REF: 001

Card

3/3

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1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCEDURES AND PROPERTIES INDEX																																																			
11H																																																			
Mechanism of action of calcium iontophoresis on eye. A. Ya. Samoilov (Moscow Med. Inst.). <i>Vestnik Oftalmol.</i> 26: 45-50(1945). --Expts. with Ca iontophoresis on the eye indicate the probability of direct entry of Ca ions into the eyeball; although the amt. of Ca thus entering cannot be detected chemically, the retinal tissue gives the characteristic contractile reaction to increased Ca concn. It was shown that the conjunctiva is about 3 times more penetrable than is the skin of the eyelids. J. M. Kozakoff																																																			
ASB-3LA METALLURGICAL LITERATURE CLASSIFICATION																																																			
1ST AND 2ND ORDERS																																																			
3RD AND 4TH ORDERS																																																			

SAMOYLOV, A. YA.

Samoylov, A. Ya. " On the localization and extraction of intra-ophthalmic foreign bodies," Sbornik nauch. rabot, posvyashch. pamyati akad. Aberbakha, Moscow-Leningrad, 1948, p. 154-60

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No. 3, 1949)

SAMOYLOV, A YA.

26677 Heskol'ko printsipial'nykh soobrafenly stnositelno prepodavaniya oftalmologii
Vestnik oftalmologii, 1949, No. 4, s. 3-7

SO: LETOPIS' NO. 35, 1949

SAMOYLOV, A.Ya.

Campimetry in diagnosis of retinal edema. Vopr. klin. eksper. oft.,
Moskva no. 1:41-49 1952. (CJML 22:4)

1. Moscow.

SAMOYLOV, A.Ya.; DOBROMYSLOV, A.N.

Experimental study on development of reactive hypertension of the eye. Vopr. klin. eksper. oft., Moskva no. 1:50-63 1952. (CML 22:4)

1. Professor for Samoylov. Fellow of the Academy of Medical Sciences USSR for Dobromyslov. 2 Moscow.

SAMOVLOV, A. Ye.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr. 1954)

<u>Name</u>	<u>Title of Work</u>	<u>Nominated by</u>
<u>Samovlov, A. Ye.</u>	"Cotton Growing" Textbook	Ministry of Agriculture Uzbek SSR

SO: W-30604, 7 July 1954

SAMOYLOV, A. Ya., chlen-korrespondent.

[Hygiene of sight] Gigiena zreniia. Moskva, Izd-vo "Znanie," 1953. 39 p.
(MLRA 6:5)

1. Akademiya meditsinskikh nauk SSSR.

(Sight)

SAMOYLOV, A. Ya.; PANTIYELEVA, V. M.

Neuro-ophthalmologic frontobasal syndrome in clinical cases of
arachnoid endotheliomas. Vop.neirokhir. 18 no.6:17-23 N-D '54.
(MLRA 8:4)

1. Iz Nauchno-issledovatel'skogo ordena Trudovogo Krasnogo Znameni
instituta neyrokhirurgii imeni akad. N. N. Burdenko Akademii medi-
tsinskikh nauk SSSR. 2. Chlen-korrespondent Akademii meditsinskikh
nauk SSSR (for Samoylov)

(ARACHNOID, neoplasms,
fronto-basal, visual manifest.)

(VISION,
disord. in fronto-basal archnoid endothelioma)

SAMOYLOV, A.Ya.; DOBKOMYSLOV, A.N.

Role of the cerebral cortex in the development of reactive ocular hypertonia. Probl. fiziol.opt. 11:191-196 '55. (MIRA 9:6)

1. Glaznaya klinika 1-go Moskovskogo meditsinskogo instituta.
(EYE, physiology,
tension, cerebrocortical regulation (Rus))
(CEREBRAL CORTEX, physiology,
regulation of intraocular pressure (Rus))

SAMOYLOV, A. Ya.

SAMOYLOV, A. Ya., professor.

Method of quantitative measurement of edema of the optic papilla. Vop.neirokhir. 19 no.5:28-36 S-O '55 (MLRA 8:11)

1. Iz Nauchno-issledovatel'skogo ordena Trudovogo Krasnogo Znameni instituta neyrokhirurgii imeni akad. N.N.Burdenko Akademii meditsinskikh nauk SSSR. 2.Chlen-korrespondent AMN SSSR.
(OPTIC NERVES, diseases,
papilledema, method of measurement of edema)

SAMOYLOV, A.Ya., professor

Method of determining the degree of affection of the optic tract.
Vop.neirokhir. 20 no.3:17-24 My-Je '56. (MLRA 9:8)

1. Iz Nauchno-issledovatel'skogo ordena Trudovogo Krasnogo Znameni
instituta neyrokhirurgii imeni akad. N.N.Burdenko Akademii medi-
tsinskikh nauk SSSR. 2. Chlen-korrespondent Akademii meditsinskikh
nauk SSSR

(NERVES, OPTIC, neoplasms
diag.)

SAMOYLOV, A.Ya.

"Diseases of the optic tract." M.Zh.Tron. Reviewed by A.IA.Samoilov.
Vop.neirokhir. 20 no.5:61-62 S-0 '56. (MIRA 9:11)
(OPTIC NERVE--DISEASES) (TRON, M.Zh.)

SAMOILOV, A.Ya., professor (Moskva); AZAROVA, N.S., professor (Simferopol')

Methods for an effective treatment of tuberculosis of the eye.
Sov.med. 21 no.6:62-70 Je '57. (MLPA 10:9)
(TUBERCULOSIS, OCULAR, ther.)

SAMOYLOV, A.Ya., prof.; SHAKHNOVICH, A.R.

A new method of local pupillography and its use in physiology and clinical practice. Vest. AMN SSSR 13 no.4:47-58 '58. (MIRA 11:4)

1. Chlen-korrespondent AMN SSSR (for Samoylov)
(PUPILS
pupillography, new method (Rus))

SAMOYLOV, A.Ya., prof., SHAKHNOVICH, A.P.

Local pupillography in neuro-ophthalmological diagnosis. Vop.
neirokhir. 22 no.3:20-25 My-Je '58 (MIRA 11:8)

1. Nauchno-issledovatel'skiy ordena Trudovogo Krasnogo Znameni
institut neyrokhirurgii imeni akad. N.N. Burdenko AMN SSSR.

(PUPILS,

pupillography, diag. value (Rus))

SAMOYLOV, A.Ya.

Trigemino-sympathetic ocular syndromes [with summary in English,
p.54]. Vop.neirokhir. 22 no.6:11-15 N-D '58. (MIRA 12:2)

1. Nauchno-issledovatel'skiy ordena Trudovogo Krasnogo Znameni
institut neyrokhirurgii imeni akad. N.N. Burdenko AMN SSSR.

(EYE DISEASES,

trigemino-sympathetic ocular synd. (Rus))

(TRIGEMINAL NEURALGIA,

same)

(SYMPATHETIC NERVOUS SYSTEM, dis.

same))

SAMOYLOV, Aleksandr Yakovlevich, red.

[Ophthalmological symptoms in brain tumors] Oftal'mologicheskie
simptomy opukholei golovnogo mozga. Moskva, Medgiz, 1959. 227 p.
(MIRA 13:4)

(BRAIN--TUMORS)

(EYE)

SAMOYLOV, A. Ya., prof.

Vasilii Vasil'evich Chirkovskii, eminent scientist in Soviet
ophthalmology; obituary. Vop. klin. i eksp. oft. no.2:3-16
'59.

(MIRA 14:11)

(CHIRKOVSKII, VASILII VASIL'EVICH, 1875-1956)

SAMOYLOV, A.Ya., prof.

Quantitative papillometry in papilledema. Oft. zhur. 14 no.1:5-10
'59. (MIRA 12:6)

1. Chlen-korrespondent AMN. Institut neyrokhirurgii im. Burdenko AMN
SSSR.

(OPTIC NERVE--DISEASES)

SAMOYLOV, A.Ya., prof.; SHAKHNOVICH, A.R., kand.med.nauk

Specific orientation and protective reactions of the pupil. Vest.
AMN SSSR 14 no.4:36-44 '59. (MIRA 14:5)

1. Chlen-korrespondent AMN SSSR (for Samoylov).
(PUPIL (EYE))

SAMOYLOV, A.Ya., prof.; SIVOSHINSKIY, D.S. (Moskva)

Professor Adrian Aleksandrovich Krinkov, founder of the Moscow
ophthalmological school; on the 50th anniversary of his death.
Klin.med. 37 no.10:135-138 O '59. (MIRA 13:2)
(BIOGRAPHIES)
(OPHTHALMOLOGY)

SAMOYLOV, A.Ya.

Study of pupillary orientation reactions to light. Biul. eksp.
i biol. med. 50 no. 8:33-37 Ag '60. (MIRA 13:10)

1. Predstavlena deystvitel'nyy chlenom AMN SSSR V.V. Parinyu.
(PUPIL (EYE)) (REFLEXES)

SAMOYLOV, A.Ya.; SOKOLOVA, O.N.; SHAKHNOVICH, A.R.

Pupillographic method of studying the act of convergence.
Biofizika 6 no. 1:84-90 '61. (MIRA 14:2)

1. Nauchno-issledovatel'skiy institut neyrokhirurgii im.akad.
N.N. Burdenko AMN SSSR, Moskva.
(~~EYE~~-MOVEMENTS)

SAMOYLOV, A.Ya., prof.; SOKOLOVA, O.N., kand.med.nauk (Moskva)

Paradoxical reaction of the pupils in hydrocephalus. Vop.neyro-
khir. 25 no.1:70-73 '62. (MIRA 15:1)

1. Nauchno-issledovatel'skiy ordena Trudovogo Krasnogo Znameni
instituta neyrokhirurgii imeni akad. N.N. Burdenko AMN SSSR.
(HYDROCEPHALUS) (PUPIL (EYE))

SAMOYLOV, Aleksandr Yakovlevich, prof.; YUZEFOVA, Fani Iosifovna, prof.; AZAROVA, Nadezhda Sergeyevna, prof.; DYMSHITS, L.A., red.; LEBEDEVA, Z.V., tekhn. red.; KHARASH, G.A., tekhn.red.

[Tuberculous diseases of the eyes] Tuberkuleznye zabolevaniia glaz. Leningrad, Medgiz, 1963. 255 p. (MIRA 16:7)

1. Chlen-korrespondent AMN SSSR (for Samoylov).
(EYE--TUBERCULOSIS)

SAMOYLOV, A.Ya., prof.; SOKOLOVA, O.N., kand.med.nauk; SHAKHINOVICH, A.R.,
kand.med.nauk

Pupillographic analysis of the normal reaction of the pupil to
light. Vop. neuroft. 2:3-16 '63. (MIRA 16:8)

1. Chlen-korrespondent AMN SSSR (for Samoylov).
(PUPIL (EYE)) (EYE--EXAMINATION)
(MOTION PICTURE PHOTOGRAPHY, MEDICAL)

SAMOYLOV, A.Ya., prof.; SOKOLOVA, O.N., kand. med. nauk

Diagnostic role of visual disorders in papilledema. Vop.
neirokhir. no.1:16-21 '65. (MIRA 18:10)

1. Nauchno-issledovatel'skiy ordena Trudovogo Krasnogo
Znameni institut neyrokhirurgii imeni N.N. Burdenko
(direktor - prof. A.I. Arutyunov) AMN SSSR, Moskva.
2. Chlen-korrespondent AMN SSSR (for Samoylov).

GALITSINSKIY, Panteleymon Konstantinovich; DEMIDOV, Sergey Ivanovich;
OBUKHOV, Mikhail Nikolayevich; SAMOYLOV, Andrey Yemel'yanovich;
GRUSHKIN, A., red.; ABBASOV, T., tekhn. red.

[Cotton varieties in Uzbekistan; results of state variety testing for 1950-1959] Sorta khlopchatnika v Uzbekistane; itogi gosudarstvennogo sortoispytaniia za 1950-1959 gg. Tashketn, Gosizdat, UzSSR, 1962. 219 p. (MIRA 15:7)
(Uzbekistan--Cotton--Varieties)

SAMOYLOV, B.A.; ALIMKIN, N.I.

Improve the organization of the system of enterprises serving public needs of the population of Moscow. Gor.khoz.Mosk. 33 no.10:4-10 0 '59. (MIRA 13:2)

1. Nachal'nik Upravleniya bytovogo i kommunal'nogo obsluzhivaniya Mosgorispolkoma (for Samoylov). 2. Glavnyy inzhener Upravleniya bytovogo i kommunal'nogo obsluzhivaniya Mosgorispolkoma (for Alimkin).

(Moscow--Public services)

~~SAMOYLOV, B.A.~~ TIRBAKH, O.G.; KHAVIN, M.N.; SHKUM, N.V.; BONDAREVSKIY,
D.I., redaktor; RACHEVSKAYA, M.I., redaktor izdatel'stva;
PETROVSKAYA, Ye.S., tekhnicheskii redaktor.

[Operation and repair of MTV-82 streetcars] Opyt ekspluatatsii i
metody remonta tramvainykh vagonov MTV-82. Moskva, Izd-vo M-va
kommun.khoz. RSFSR, 1957. 78 p. (MLRA 10:7)
(Streetcars--Maintenance and repair)

SAMOYLOV, Boris Alekseyevich; TIRBAKH, Oleg Georgiyevich; SHKROM, Nikolay Vasil'yevich; BELOSTOTSKIY, I.A., red.; TEL'NOV, N.V., red.izd-va; PYRKINA, N.P., tekhn.red.

[Over-all mechanization of maintenance and repair operations of streetcars; from the practices of the Apakov Depot of the Moscow Passenger Transportation Authority] Kompleksnaya mekhanizatsiya remonta tramvaynykh vagonov; iz opyta raboty tramvainogo depo im. Apakova Upravleniya passazhirsogo transporta Moskvy. Moskva, Izd-vo M-va kommun.khoz.RSFSR, 1960. 101 p.

(MIRA 14:4)

(Moscow--Streetcars--Maintenance and repair)

SAMOYLOV, B.A.; ALEKIN, N.I.

Let's exemplarily organize the system of enterprises serving public needs. Gor. khoz. Mosk. 35 no.2:23-25 F '61. (MIRA 14:2)

1. Nachal'nik Upravleniya bytovogo i kommunal'nogo obsluzhivaniya Mosgorispolkoma (for Samoylov). 2. Zamestitel' nachal'nika Upravleniya bytovogo i kommunal'nogo obsluzhivaniya Mosgorispolkoma (for Alimkin).

(Moscow--Municipal services)

SAMOYLOV, Boris Alekseyevich; TIRBAKH, Oleg Georgiyevich; SHKRUM,
Nikolay Vasil'yevich; RACHEVSKAYA, M.I., red. izd-va;
KHENOKH, E.M., tekhn. red.

["Tatra-2" streetcars]Tramvainye vagony "Tatra-2." Moskva,
Izd-vo M-va kommun.khoz.RSFSR, 1962. 167 p. (MIRA 15:10)
(Streetcars---Design and construction)

SAMOYLOV, Boris Alekseyevich; TIRBAKH, Oleg Georgiyevich; KHAVIN,
Mikhail Nikolayevich; SHKRUM, Nikolay Vasil'yevich;
BELOSTOTSKIY, I.A., red.

[The RVZ-6 streetcar] Tramvainyi vagon RVZ-6. Moskva,
Stroiizdat, 1964. 167 p. (MIRA 17:7)

RIVKIN, G. M., SAMOYLOV, B. I.

Turning

Finishing turning with tools equipped with a removable cutting surface.
Stan. i instr. 23, No. 4, 1952

9. Monthly List of Russian Accessions, Library of Congress, November 1952 ~~1953~~ ^{XXXX}, Uncl.

RYVKIN, G.M.; SAMOYLOV, B.I.

Kinematic crushing of shavings in grinding. Stan.i instr. 24 no.12:
15-16 D '53. (MIRA 7:1)

(Metal cutting)

RYVKIN, G.M.; SAMOYLOV, B.I.

Cutting tools for automatic machining. Stan. i instr. 26 no.11:
18-23 N '55. (Cutting tools) (MIRA 9:2)

ACC NR: AP6029077

SOURCE CODE: UR/0413/66/000/014/0133/0133

INVENTORS: Samoylov, B. I.; Akimov, A. V.

ORG: none

TITLE: A cutting tool with a mechanically fixed polygonal cutting plate. Class 49, No. 184102

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 133

TOPIC TAGS: metalworking, mechanical metal cutting, metal machining

ABSTRACT: This Author Certificate presents a cutting tool with a mechanically fixed polygonal cutting plate of either a hard alloy or a mineral ceramic. The cutter contains an open recess below the plate in the holder and a plate provided with a central opening (see Fig. 1). To secure a rigid and positive hold on a plate of any size (starting with very small ones) and in any cutting conditions, the plate is wedged along one of its sides between an immobile cylindrical rod placed in the recess of the holder (and passing through the opening in the plate) and the lateral side of the recess by a wedge-shaped insert with a holding screw.

Card 1/2

UDC: 621.9.025.7

ACC NR: AP6029077

SOURCE CODE: UR/0413/66/000/014/0133/0133

INVENTORS: Samoylov, B. I.; Akimov, A. V.

ORG: none

TITLE: A cutting tool with a mechanically fixed polygonal cutting plate. Class 49, No. 184102

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 133

TOPIC TAGS: metalworking, mechanical metal cutting, metal machining

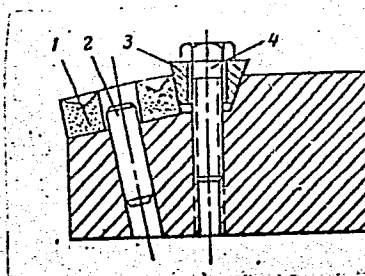
ABSTRACT: This Author Certificate presents a cutting tool with a mechanically fixed polygonal cutting plate of either a hard alloy or a mineral ceramic. The cutter contains an open recess below the plate in the holder and a plate provided with a central opening (see Fig. 1). To secure a rigid and positive hold on a plate of any size (starting with very small ones) and in any cutting conditions, the plate is wedged along one of its sides between an immobile cylindrical rod placed in the recess of the holder (and passing through the opening in the plate) and the lateral side of the recess by a wedge-shaped insert with a holding screw.

Card 1/2

UDC: 621.9.025.7

ACC NR: AP6029077

Fig. 1. 1 - plate; 2 - cylindrical rod;
3 - wedge-shaped insert; 4 - holding
screw



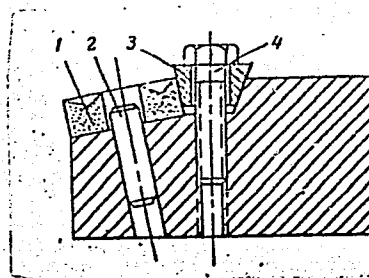
Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 28Apr59

Card 2/2

ACC NR: AP6029077

Fig. 1. 1 - plate; 2 - cylindrical rod;
3 - wedge-shaped insert; 4 - holding
screw



Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 28Apr59

Card 2/2

SAMOYLOV, B. N.

42027 SAMOYLOV, B. N. - Spektry poglo--shcheniya i leyominestsentsii yranilovykh soley pri temperature zhitskogo geliya. Zhurnal eksperim. i teoret fiziki, 1948. Vyp. 11, s. 1030-40. - Bibliogr: 6 nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 47, 1948

SAMOYLOV, B. N.

42027 SAMOYLOV, B. N. - Spektry poglo--shcheniya i lyuminestsentsii yranilovykh soley pri temperature zhitskogo geliya. Zhurnal eksperim. i teoret fiziki, 1948. Vyp. 11, s. 1030-40. - Bibliogr: 6 nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 47, 1948

SAMOYLOV, B. N.

PA 19/49T85

USSR/Physics
Spectra, Absorption
Luminescence

Sep/Oct 48

"Absorption Spectra and Luminescence of Uranyl Salts
at the Temperature of Liquid Helium," B. N. Samoylov,
Inst of Phys Problems, Acad Sci USSR, 1 $\frac{1}{2}$ pp

"Iz Ak Nauk SSSR, Ser Fiz" Vol XII, No 5

Spectra of uranyl sulfate, potassium-uranyl-sulfate,
uranyl chloride, uranyl acetate, and sodium-uranyl-
acetate were investigated at temperature of liquid
helium. Summarizes results. Paper will appear in
full in "Zhur Eksper i Tekh Fiz."

19/49T85

SAMOYLOV, B. N.

PA 19/49T85

USSR/Physics
Spectra, Absorption
Luminescence

Sep/Oct 48

"Absorption Spectra and Luminescence of Uranyl Salts
at the Temperature of Liquid Helium," B. N. Samoylov,
Inst of Phys Problems, Acad Sci USSR, 1 $\frac{1}{2}$ pp

"Iz Ak Nauk SSSR, Ser Fiz" Vol XII, No 5

Spectra of uranyl sulfate, potassium-uranyl-sulfate,
uranyl chloride, uranyl acetate, and sodium-uranyl-
acetate were investigated at temperature of liquid
helium. Summarizes results. Paper will appear in
full in "Zhur Eksper i Tekh Fiz."

19/49T85

3 Absorption and luminescence spectra of uranyl salts at the temperature of liquid helium. B. N. Samoilov. <i>Zhur. Eksp. Teor. Fiz.</i> 18, 1030-40 (1948).—The spectra, at 4.2°K., were photographed with 1st-order resolution of 8 Å/mm. Tabulated wave lengths of lines of the fluorescence spectrum, with rough indications of intensity, are: $K_2O_3(SO_4)_2 \cdot 2H_2O$ (I), groups (0) 4013.6-4070 Å., (1) 5103.2-5185.0, (2) 5302.8-5403.4, (3) 5580.0-5603.5; $UO_2SO_4 \cdot 3H_2O$ (II), groups (0) 4018.1-5029, (1) 5133.0-5232.3, (2) 5308.7-5453; UO_2Cl_2 (III), (0) 4807.0-4853, (1) 5085.4-5170.6, (2) 5323.0-5409; $UO_2(OAc)_2 \cdot 2H_2O$ (IV), (0) 4854.5-4885.0, (1) 5008.2-5211.3, (2) 5286.0-5304.7; $NaUO_2(OAc)_3$ (V), (0) 4729.3-4877.7, (1) 4928.5-5110.2, (2) 5144.6-5317.4, (3) 5379.6-5507.2, (4) 5630.4-5691.0 Å. Absorption line wave-lengths are tabulated for II, III, IV, and V. Fluorescence and absorption spectra were also recorded at the temp. of liquid air. Lowering of the temp. from liquid air to liquid He results in further narrowing of the bands and their resolution into still narrower bands or lines, and in a shift of the whole spectrum to shorter waves. The narrowing is particularly marked within the 1st groups of the fluorescence spectrum. With IV, the diffuse background extending into longer waves at the liquid-air temp. is resolved into lines in liquid He. With V, all fluorescence bands become double in liquid He, with each of the doublets consisting of 2-3 lines, and the distance between the components of the doublet remaining const. within each group and decreasing with increasing no. of the group. AS 50.51.4 METALLURGICAL LITERATURE CLASSIFICATION		These doublets are not observed in absorption. The shifts of the heat lines of the fluorescence spectra, from the liquid-air to the liquid-He temp., in groups 0, 1, 2, and 3, are, for V, 8, 7, 8, and 11, for IV, 3.5, 5, 4.5, —, for III, 6, 7, 6.5, — cm.⁻¹. A new polarization phenomenon was observed in the fluorescence lines of V at liquid-air temp., the heat lines having been found to be circularly polarized (in excitation with natural light). This polarization is not observed in polycryst. powders, as a result of the presence of "left" and "right" crystals in mixt. A powd. single crystal does show circular polarization. At the temp. of liquid He only a few heat lines in each group are polarized. Crystals of V have a natural rotatory power, up 1.48°. N. Thon <i>Inst.-Phys. Problems, AS USSR</i>
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Unsolved problems of the semiconductor theory. A. F. Ioffe. *Izvest. Akad. Nauk S.S.S.R., Ser. Fiz.* 15, 477-86 (1951).—The existence of liquid semiconductors makes inadequate the present theory based on a periodicity of the crystal lattice. Examples of the semiconducting nature of liquids are given: the temp. coeff. of cond. of TiS , Sb_2O_3 , Bi_2O_3 , Na_2Te , and Na_2Te remains the same in the solid or the liquid state; however, when fusion is accompanied by a change in the nature of chem. bonds or coordination no (Ge , Se), there is an abrupt change in cond. and temp. coeff. Ge becomes metallic; Se remains a semiconductor with an enlarged forbidden zone; liquid Te gradually goes over from a semiconductive to a metallic state. Thus semiconducting

properties are attributed to short-range forces. These short-range forces appear even in the gaseous state, since the type of chem. bonds affects the zonal structure in the crystal. In ionic crystals the surplus of one or the other component leads to n- or p-type cond. (TiS , PbS , MgSb_2). In covalent crystals (ZnSb) the type of cond. remains the same regardless of the surplus element. For recombination of an electron with a hole an energy barrier has to be overcome similar to the formation of neg. ions in gas discharges. The movement of electrons in the crystal is not a function of m_0 (mass of free electron) but of m^* ("effective" mass of the electron). The "effective" mass can be calculated from simultaneous measurements of the Hall const. and the thermoelec. force. Ioffe tabulates it for diamond-type lattices (Si^+ , Si^- , Ge^+ , HgSe^+ , HgTe^+ , InSb^+) and shows that the "effective" mass is equal to the "free" mass for Si^+ , Si^- , InSb^+ , and HgTe^+ is a small fraction of this mass in Ge^+ , HgSe^+ , PbTe^+ , and CdTe^+ and is many times greater in TiO_2^+ , WO_3^+ , and Se^+ . Metals can also have "hole" cond. or mixed electron and hole cond. S. Faksver

Superconductivity of cadmium. B. N. Samoilov (S. I. Vavilov Inst. Phys. Problems, Moscow). *Dokl. Akad. Nauk S.S.S.R.* 81, 791-4 (1951).—Measurements below 0.6° K. were made by a method consisting in recording the changes of the ohmic resistance, through the e.m.f. induced in a circuit coupled inductively with the circuit containing the sample mounted as a shunt. With a residual resistance of the sample of the order of 10^{-8} ohm and a current of $\sim 10^{-4}$ amp., the change of the signal in the induced circuit at the superconductive transition is of the order of 10^{-8} v., as against a change of the potential drop on the sample itself of only 10^{-9} v. The plot of the crit. magnetic field H_c as a function of the temp. T is satisfactorily described by $H_c = H_0 [1 - (T/T_c)^2]$, and gives the numerical data: crit. temp. $T_c = 0.547 \pm 0.005^\circ\text{K}$, $H_0 = 28.4 \pm 0.3$ gauss, and $\epsilon H_0^2/2\pi T_c^2 = \gamma = (1.33 \pm 0.03) \times 10^{-4}$ cal./mole (degree)² N. Thon

SANDYLOV, B.N.

Superconductivity of Cadmium. B. N. Sandylov (Doklady Akad. Nauk S.S.S.R., 1951, 81, (5), 1041-1043; English transl. in Soviet Phys. Dokl., 1951, 2, 1041-1043). S. Investigated the dependence of the critical field, H_c , for Cd on the temp., T , at temp. below 1°K . by using an inductive circuit to record the change in ohmic resistance R of the specimen instead of measuring its abs. value. This method had the advantages that: with a residual R of $\sim 10^{-4} \Omega$ and a current through the specimen of $\sim 10^{-4}$ amp., a change in signal of $\sim 10^{-3}$ V. was obtained instead of the change of $\sim 10^{-2}$ V. in the specimen; that there was no direct connection between specimen and measuring instruments by which heat could be conducted; and that the experiment was simpler and only a small quantity of metal was required. The specimen consisted of a Cd wire (0.4 mm. in dia., length 10 mm.), soft soldered at the upper end to a Cu wire (1.5 mm. in dia., 6 mm. long) brazed to Cu plates (8 cm.² surface) pressed into a rock-salt support at the end of a glass tube. The specimen and two coils of Pb wire (~ 10 turns each, wound round the glass tube, dia. ~ 12 mm.) were connected in ||; the circuit

also contained two small resistances ($\sim 10^{-4} \Omega$). This assembly was sealed inside another glass tube containing a small amount of Ha. On a 20-mm.-dia. shorite cylinder around this were wound primary (2000 turns) and secondary (two oppositely-linked coils of 10,000 turns each) coils of 0.05-mm. Cu wire fourth coil of 5000 turns to determine the magnetic moment of the rock-salt, i.e., the magnetic temp. The data obtained at temp. $< 0.5^\circ \text{K}$. are plotted as graphs of H_c versus T and T^2 , and satisfy the equation $H_c = H_0 [1 - (T/T_c)^2]$. From the graphs, $T_c = 0.547^\circ \pm 0.005^\circ \text{K}$, $H_0 = 23.4 \pm 0.3$ gauss, and $\gamma = \frac{1}{2} \frac{H_0^2}{T_c^2} = (1.33 \pm 0.03) \times 10^{-4}$ cal./mole/degree², γ being the atomic vol. These results are in good agreement with those of Alekseyevsky and Migunov (J. Physics U.S.S.R., 1947, 11, 95) and of Goodman and Mendara (Phil. Mag., 1951, [vii], 42, 504; M.A., 19, 817), but the value for γ differs from that obtained by Daunt (Phys. Rev., 1950, [ii], 60, 911; M.A., 18, 106).—G. V. E. T.

Inst. Phys. Problems in Leningrad

SAMOYLOV, B. N.

SAMOYLOV, B. N. -- "Measurement of the Heat Capacity of Metals at Very Low Temperatures, (Cadmium 0.3-0.9°K)." Sub 21 Jun 52, Inst of Physical Problems imeni S. I. Vavilov, Acad Sci USSR. (Dissertation for the Degree of Candidate in Physicomathematical Sciences).

SO: Vechernaya Moskva January-December 1952

SAMOYLOV, B. N.

USSR/Physics - Low Temperature, Sealing May 52

"Application of Pastes BF-2 and BF-4 in Experiments
at Low Temperatures," B. N. Samoylov

"Zhur Tekh Fiz" Vol XXII, No 5, pp 888, 889

Sealing of elec outlets in equipment for low temps
is facilitated by application of BF-2 and BF-4
pastes, which polymerize and become good insulators
and do not crack at temp of liquid helium. Letter
to the editor.

222T92

SAMOYLOV, B. N.

235T104

USSR/Physics - Low Temperature Studies

11 Sep 52

"Measurement of the Thermal Capacity of Metals at Super-Low Temperatures (Cadmium From 0.3 to 0.9°K)," B. N. Samoylov, Inst of Phys Problems imeni Vavilov, Acad Sci USSR

"Dok Ak Nauk SSSR" Vol 86, No 2, pp 281-284

Finds the thermal capacity of cadmium in the normal state to be given by the following expression:
 $C = 1.70 \cdot 10^{-4} T + 464.5 (T/300)^3$ cal/mol·grad. Thanks P. G. Strelkov, who was director of the work described here, and N. Ye. Alekseyevskiy; also acknowledges the assistance of S. A. Yakovlev and V. I. Kolokol'nikov. Submitted by Acad L. D. Landau 16 Jul 52.

235T104

SAMOYLOV, B.N.

Chemical Abst.
Vol. 48 No. 3
Feb. 10, 1954
Apparatus, Plant Equipment, and
Unit Operations

A dilatometer for small-size samples. R. G. Strikov, G. I. Kosourov, and B. N. Samoilov. *Izvest. Akad. Nauk S.S.S.R., Ser. Fiz.* 17, 883-8 (1953).—A vacuum dilatometer is described for direct and differential readings. The small size sample is placed on a polished quartz table carried by a quartz tube. A quartz loop terminating with a rod through the center of the quartz tube is suspended on the sample. The rod carries a steel piece at the bottom part attracted by a magnetic table in such a way that a small quartz wheel carrying a mirror is held between the rod and the magnet and can rotate upon elongation of the rod. The sensitivity is 2×10^{-4} mm. The differential device carries 2 wheels. Measurements of the thermal elongation of quartz (cubic pieces with 3 mm. side) are indicated in the region 20-925° and the change in coeff. at the transition point $\alpha \rightarrow \beta$ of quartz is well shown. A sliver of Ag 2.16 mm. long has been measured between 21 and 812°. The measurements on Ag are in good agreement with other dilatometric measurements, but are smaller by 8% at high temp. than data obtained by x-ray analysis. S. Pakswar

9-16-54
JJP

USSR/Chemistry

Card 1/1

Authors : Strelkov, P. G., Tsikevich, E. S., Kostryukov, V. N., Mirskaya, G. G., and Samoylov, B. N.

Title : Thermodynamic investigations at low temperatures. Part 2.- Measurement of specific heat of solids and liquids between 12 and 300° K.

Periodical : Zhur. Fiz. Khim. 28, Ed. 3, 459-472, March 1954

Abstract : A vacuum calorimeter arrangement with screening shields was constructed which enables to measure at low temperatures the specific heat of substances which at room temperature are either in solid or liquid states. The vacuum housing of the calorimeter is sectional because of the sectional vacuum compressor functioning at low temperatures. The installation is equipped with all other auxiliary devices. Calibration is made on the empty calorimeter. The described arrangement enables to conduct measurements in a temperature range of from 12-300° K. Three references. Drawings, graphs.

Institution : Acad. of Sc. USSR, the S. I. Vavilov Institute of Physical Problems and the Moscow State Institute of Weights and Measures

Submitted : June 6, 1953

SAMOYLOV, B. N.

USSR/Chemistry - Specific Heat

Card 1/1

Authors : Kostryukov, V. N., Alikhanyants, R. A., Samoylov, B. N., and Strelkov, P. G.

Title : Thermodynamic Studies at Low Temperatures. IV. Methods for Measuring the Specific Heat of Condensed Gases.

Periodical : Zhur. Fiz. Khim. Vol. 28, Ed. 4, 650-655, Apr 1954

Abstract : A general description is given of a calorimetric apparatus, used for measuring the specific heat of condensed gases at low temperatures, and the determination of the volume of gas by means of weighing it under condensed condition. Four references; tables; graphs, drawings.

Institution : S. I. Vavilov's Institute of Physical Problems of the AS of the USSR.

Submitted : June 8, 1953

B. N. Smirnov

24(0)
AUTHOR:

Chentsov, R.

507/53-67-4-7/1

TITLE:

The 15th All-Union Conference on the Physics of Low Temperatures (5-ye Vesoyunnoye sovmestniye po fizike nizkikh temperatur)

PERIODICAL:

Voprosy fizicheskikh nauk, 1959, Vol 67, Nr 4, pp 743-750 (USSR)

ABSTRACT:

This Conference took place from October 27 to November 1 at Tbilisi; it was organized by the Otdeleniye fiziko-matematicheskikh nauk Akademii nauk SSSR (Department of Physical-Mathematical Sciences of the Academy of Sciences, USSR), the Akademiy nauk Gruzinskoy SSR (Academy of Sciences, GSSR), Gruzinskaya SSR, and the Tbilisskiy gosudarstvennyy universitet im. Stalina (Tbilisi State University named Stalin). The Conference was attended by about 300 specialists from other cities as well as by a number of young Chinese scientists at present working in the USSR. About 50 lectures were delivered which were divided according to research fields.

One of the most interesting lectures delivered at this Conference was that by V. L. Bonch-Bruyevich, B. G. Lazarev, Ya. D. Starodubov and V. L. Bonch-Bruyevich (LPTI) on the polymorphism of solids at low temperatures. B. G. Lazarev commented on this topic during the discussion. B. G. Lazarev and V. L. Bonch-Bruyevich (LPTI) investigated the properties of ^3He - ^4He and by the methods of low-temperature-radiography, neutron-deuteron and the visual observation of crystallization. B. G. Lazarev, Sh. Kh. Mirzhanova and B. I. Bashilov investigated the thermomagnetic properties of compounds of the type Al_2O_3 and Al_2O_3 and dealt with the phenomenon of the "photon

sound" predicted by Gurevich; the investigation was carried out at the Department of Physics of the Leningrad Branch, AS USSR, B. M. Reznor and A. P. Shapovalov (LPTI - Leningrad Physico-technical Institute). A. P. Shapovalov reported on the measurement of the electrical limit of tin and lead on the measurement of the low temperatures (^3He) and V. L. Bonch-Bruyevich and B. I. Krivko (LPTI) spoke about attempts made to find the expected diamagnetic resonance on polarons in cuprous oxide. V. L. Bonch-Bruyevich and Institut fiziki AS Gruzinskoy SSR - Tbilisi, G. M. Lomkade investigated the properties of the Overhauser effect in non-metals. Lomkade investigated the electron- and nuclear (proton) resonance in diphenylpicryl hydrazyl at helium temperatures. A. P. Shapovalov spoke about, at the same time, he carried out concerning the orientation of Co^{59} and Au^{199} -nuclei (in terms of low temperatures). B. P. Lazarev and V. L. Bonch-Bruyevich (LPTI) investigated the absorption spectrum of a cuprous oxide crystal in the magnetic field at helium temperatures and observed the effect of magneto-optical oscillations. V. P. Rezhkov and B. I. Krivko gave information concerning scientific work of Soviet scientists in foreign countries (Sovetskaya nauchnaya komandirovka). A. P. Shapovalov spoke about the abstracting journal "Fizika". The head of the department for problems of the physics of low temperatures, Academician P. L. Kapitza and the President of the Academy of Sciences Gruzinskaya SSR, Academician N. I. Makharadze closed the Conference. The 6. All-Union Conference on the Physics of Low Temperatures will be held in June and July 1959 in the city of Sverdlovsk.

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Card 10/11

21(8)

AUTHORS: Samoylov, B. N., Sklyarevskiy, V. V., Stepanov, Ye. P. SOV/56-36-2-59/63

TITLE: The Polarization of the Au¹⁹⁸ Nuclei in a Solution of Gold in Iron (Polyarizatsiya yader Au¹⁹⁸ v rastvore zolota v zheleze)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 2, pp 644-645 (USSR)

ABSTRACT: G. R. Khutsishvili (Ref 1) suggested a method for the polarization of the nuclei of ferromagnetic elements. The authors tried to generalize this method to nuclei of non-ferromagnetic elements introduced into a ferromagnetic. The present paper discusses the results of the investigation of the polarization specified in the title. The sample of the Au-Fe-alloy (0.3 weight percent) - a disk of 0.3 cm diameter and 0.01 cm thickness) was irradiated by thermal neutrons in a reactor. After irradiation, the sample was tempered in vacuum and it was fastened to the end of a copper "cold conductor". Au¹⁹⁸ is desintegrated by β -decay (transition $2^- \rightarrow 2^+$) and then a γ -radiation of 411 kev (transition $2^+ \rightarrow 0^+$) is emitted. At a temperature of $\sim 0.015^\circ\text{K}$, the value of anisotropy is equal to 3.3%. The degree of magnetization of the sample in a constant magnetic field amounted to ~ 0.6 of the saturation value.

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SOV/56-36-2-59/63

The Polarization of the Au ¹⁹⁸ Nuclei in a Solution of Gold in Iron

The true value of the anisotropy (which corresponds to a 100% magnetization of the sample), therefore is equal to $\epsilon = 3.3/0.6 = 5.5\%$. According to these results, the value of $\beta = \mu H/kTI$ is within the interval 0.3 - 0.4, and the polarization f_1 of the nuclei Au¹⁹⁸ - within the interval 0.25 - 0.35. (μ denotes the magnetic moment of Au¹⁹⁸, I - the spin of Au¹⁹⁸, and H - the magnetic field on the nucleus Au¹⁹⁸). At $T = 0.015^\circ \text{K}$, from the measured value $\beta = 0.3 - 0.4$ $H = (0.5 - 0.7) \cdot 10^6 \text{ Oe}$. can be deduced. Such a high field strength can be explained only by the existence of a magnetic moment in the electron shell of the Au atoms contained in the Au-Fe alloy. The formation of such a magnetic moment can be caused by the exchange interaction between the electron shells of the Au and Fe atoms in the Au-Fe alloy. It is not impossible; however, that the Au atoms in the Au-Fe alloy are paramagnetic ions which have no exchange bonds with the Fe atoms. It is hoped that the method of introducing nuclei into ferromagnetic alloys considerably increases the number of the elements which are subjected to polarization. Moreover, the investigation of the polarization of nuclei in various alloys may supply data concerning the magnetic properties of the atoms in these

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SOV/56-36-2-59/63
The Polarization of the Au¹⁹⁸ Nuclei in a Solution of Gold in Iron
alloys. There are 3 references, 1 of which is Soviet.

SUBMITTED: November 25, 1958

Card 3/3

24(3), 21(0)
AUTHORS:

Samoylov, B. N., Sklyarevskiy, V. V., SOV/56-36-5-7/76
Stepanov, Ye. P.

TITLE:

Polarization of Cobalt- and Iron Nuclei in Ferromagnetics
(Polyarizatsiya yader kobal'ta i zheleza v ferromagnetikakh)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959,
Vol 36, Nr 5, pp 1366-1367 (USSR)

ABSTRACT:

Several years ago Khutsishvili suggested a method for the polarization of the nuclei of ferromagnetic substances, which was verified experimentally at $0.05 - 0.08^{\circ}\text{K}$ by N. Ye. Alekseyevskiy, I. F. Shchegolev and N. V. Zavaritskiy. Similar experiments were successfully carried out also at Oxford. The authors of the present report describe the results obtained by polarization investigations on Co^{60} - and Fe^{59} -nuclei. They worked with the polycrystalline ferromagnetic alloy "Permendure" ($\text{Co:Fe}=50:50$); the sample had a thickness of 0.2 mm and a diameter of 3mm. It was irradiated in a reactor with thermal neutrons, after which it was tempered in a vacuum, following which it was subjected to cold- and magnetic treatment (1000 oe). The

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occurring γ -radiation was recorded by means of two scintillation counters with CsJ-crystals. The activity of the samples amounted to 3 - 4 μ C. Several series of measurements were carried out on two samples. The results are shown by a figure, a diagram which represents $\sqrt{E}(1/T)$. It holds that $\xi = 1 - N(0)/N(\pi/2)$. $N(0)$ is the number of counts along the field, $N(\pi/2)$ is the number of counts transverse to the field. The measuring results are scattered about a straight line which may be represented by

$\xi = 1.2 \cdot 10^{-4} T^{-2}$. At very low temperatures a deviation from this law occurs. For $H = 2.5 \cdot 10^5$ G the authors obtained a value of the constant of hyperfine splitting $A = 2.4 \cdot 10^{-2}$ $^{\circ}$ K, which is in good agreement with the values obtained in reference 4. Experiments carried out with respect to the polarization of iron nuclei in Armco iron samples (3 mm diameter, 0.1 mm thickness, activity 2-3 μ C) showed that within the range of from 0.01 - 0.03 to 1 $^{\circ}$ K no anisotropy

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of γ -radiation could be observed. At $H = 2.5 \cdot 10^5 \text{ G}$ and $\epsilon \approx 0.5\%$, μ was determined as amounting to $\mu \leq 1.5$ nuclear magnetons. The authors finally thank Ye. K. Zavoytskiy for his interest and advice, and L. V. Groshev for discussing the results. There are 1 figure and 5 references, 2 of which are Soviet.

SUBMITTED: November 25, 1958

Card 3/3

24(3)

AUTHORS:

Samoylov, B. N., Sklyarevskiy, V. Y., SOV/56-36-6-56/66
Stepanov, Ye. P.

TITLE:

Nuclear Polarization of Weakly Magnetic Elements, Introduced
Into Ferromagnetics (Polyarizatsiya yader slabomagnitnykh
elementov, vvedennyykh v ferromagnetik)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959,
Vol 36, Nr 6, pp 1944-1946 (USSR)

ABSTRACT:

Following an earlier paper (Ref 1) on the polarization of
Au¹⁹⁸-nuclei in Au-Fe-alloys, the authors in the present
"Letter to the Editor" publish results obtained by polariza-
tion measurements of Sb¹²²-nuclei in weak Sb-solutions in
iron and of In^{114m}-nuclei in such In-solutions in Fe. An
Sb-Fe-alloy (0.6 weight% Sb) was irradiated in a reactor with
thermal neutrons; the activity of the Sb¹²² amounted to about
4 μ C. The results obtained by one of each of the measurements
of the anisotropy of γ -radiation carried out are given by a
figure ($E_{\gamma} = 566$ kev (transition $2^{+} \rightarrow 0^{+}$), γ -emission after

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Introduced Into Ferromagnetics

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β -decay of Sb^{122} (transition $2^- \rightarrow 2^+$). The experimental points show the dependence of the intensity of the γ -rays counted by means of a detector at angles of $\theta = 0^\circ$ and 90° to the field direction upon time after demagnetization of the salt. Between 5 to 50 min the temperature changed from 0.025 to 0.035° K. 10 minutes after demagnetization a γ -anisotropy of $\epsilon = 2.5\%$ was measured at a temperature of 0.03° K. ($\epsilon = 1 - N(0^\circ)/N(90^\circ) - N$ denotes the number of counts at an angle (θ)). For In-Fe (0.5 weight% In), the following results are obtained: In 114m : $E_\gamma = 192 \text{ kev}$ ($5^+ \rightarrow 1^+$), T (5 min after demagnetization) 0.035° K; $\epsilon \approx 8\%$ at T = 0.04° K. Further, Cr 51 was investigated in Cr-Fe. Results: $E_\gamma = 320 \text{ kev}$ ($5/2^- \rightarrow 7/2^-$), γ -emission after K-capture of the Cr 51 ($7/2^- \rightarrow 5/2^-$) within the temperature interval of from 0.03 to 1° K. There follows a short discussion of measurement accuracy and of the results obtained. It may be concluded from these results that the method of the nuclear polarization of weakly magnetic atoms by introducing them into a ferromagnetic has universal character and

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renders it possible to attain relatively high degrees of polarization. The authors finally thank Ye. K. Zavoytskiy for his valuable advice, L. D. Puzikov for his assistance in calculating the angular distribution of γ -radiation, and L. V. Groshev, V. M. Galitskiy, and D. P. Grechukhin for discussions. There are 1 figure and 4 references, 1 of which is Soviet.

SUBMITTED: March 10, 1959

Card 3/3

SAMOYLOV, B. N.,

"Polarization of Nuclei of Weakly Magnetic Elements Introduced in Ferromagnets."

report submitted for the Intl. Conference on Low Temperature Physics, IUPAP,
Toronto, 29 Aug-3 Sep 60.

SAMOYLOV, B.N.; SKLYAREVSKIY, V.V.: STEPANOV, Ye.P.

Polarization of the nuclei of diamagnetic elements dissolved in
iron. Zhur.eksp.i teor.fiz. 38 no.2:359-371 F '60. (MIRA 14:5)
(Diamagnetism) (Nuclei, Atomic)

SAMOYLOV, B.N.; SKLYAREVSKIY, V.V.; GOROBCHENKO, V.D.;
STEPANOV, Ye.P.

Asymmetry of the beta radiation from Co ⁶⁰ nuclei polarized in
a cobalt-iron alloy. Zhur. eksp. i teor. fiz. 40 no.6:1871-
1874 Je '61. (MIRA 14:8)

(Beta rays)
(Cobalt—Isotopes)
(Cobalt—Iron alloys)

SKLYAREVSKIY, V.V.; SAMOYLOV, B.N.; STEPANOV, Ye.P.

Temperature dependence of the magnitude of the hyperfine
splitting of Dy^{141} levels in paramagnetic dysprosium oxide.
Zhur. eksp i teor. fiz. 40 no.6:1874-1876 Je '61.

(MIRA 14:8)

(Dysprosium--Isotopes)

(Dysprosium oxide--Magnetic properties)

S/056/61/041/006/018/054
B102/B138

AUTHORS: Samoylov, B. N., Sklyarevskiy, V. V., Gorobchenko, V. D.

TITLE: Determination of the sign of the local magnetic field on nuclei of gold dissolved in iron or nickel

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 41, no. 6(12), 1961, 1783-1786

TEXT: In a previous paper (Ref. 2: ZhETF, 40, 1871, 1961) the authors have reported on a method of determining the magnitude and sign of a local magnetic field from the asymmetry in angular distribution of the β -radiation of polarized nuclei. Theoretical problem are discussed first. The asymmetry, which is defined as $\xi_\beta = [N(0) - N(\pi)]/N_0$, where N_0 denotes the isotropic count, is given by

$$\xi_\beta \approx - \frac{1/2 + 2\sqrt{1/2} \lambda/\mu}{1 + (\lambda/\mu)^2} \frac{\rho \mu_N H_n}{W k T} \quad (4);$$

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Determination of the sign of the local ... S/056/61/041/006/018/054
B102/B138

$p = \sqrt{W^2 - 1}$ is the electron momentum, λ and μ are parameters, linear combinations of the nuclear matrix elements as defined by Morita-Morita (Phys. Rev. 109, 2048, 1958), μ_N is the nuclear magnetic moment and H_N the local field. The experimental arrangement has been described in Ref. 2. After activation by thermal neutrons the specimens, containing ~0.3% by weight gold and ~1% by weight iron and nickel, respectively, were annealed at ~1000°C for 2-3 hr. ϵ_H was plotted as a function of $1/T$ and after corrections had been incorporated, it was found from the gradient of the straight lines that: $\epsilon_H = -(8.9 \pm 0.3) \cdot 10^{-3} T^{-1}$ for gold in iron and $\epsilon_H = -(1.6 \pm 0.1) \cdot 10^{-3} T^{-1}$ for gold in nickel. With Eq. (4) the following was found

$$H_N = (6.2 \pm 0.2) \frac{1 + (\lambda/\mu)^2}{1/2 + 2\sqrt{1/2}\lambda/\mu} \cdot 10^5 \text{ Oe}; \quad H_N = (1.1 \pm 0.07) \frac{1 + (\lambda/\mu)^2}{1/2 + 2\sqrt{1/2}\lambda/\mu} \cdot 10^5 \text{ Oe.} \quad (A)$$

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for gold in iron and gold in nickel, respectively. With R. M. Steffen's value $\lambda/\mu = -1 \pm 0.7$ (Phys. Rev. 118, 763, 1960) the local field strength $H_g \approx -1.0 \cdot 10^6$ oe is calculated for iron and is in agreement with earlier measurements by the authors (ZhETF, 38, 359, 1960). In nickel it is $\approx 1.8 \cdot 10^5$ oe, which is 5.6 times less, but in both cases it is in the opposite direction to the domain field. This could either be attributed to the contact field of the inner s-shells electrons or to contact interaction with polarized electrons. The latter, however, is in contradiction with results by Ye. I. Kondorskiy (ZhETF, 40, 381, 1961). The authors thank Ye. K. Zavoyskiy, L. V. Groshev, Ya. A. Smorodinskiy, D. P. Grechukhin, D. F. Zaretskiy, Yu. M. Kagan and L. D. Puzikov for discussions and O. A. Chilashvili, V. N. Agureyev, N. V. Razzhivin, I. B. Filippov, M. Ye. Yukovich, V. A. Drozdov and V. D. Sheffer for assistance. There are 2 figures and 8 references: 4 Soviet and 4 non-Soviet. The four most recent references to English-language publications read as follows: B. N. Samoilov et al. Proc. VII Int. Conf. Low Temp. Physics, Toronto, 1960, p. 171; L. D. Roberts, J. O. Thomson. Bull. Amer. Phys. Soc., 6, 230, 1961;

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Determination of the sign of the local ...

S/056/61/041/006/018/054
B102/B138

D. A. Goodings, V. Heine. Phys. Rev. Lett., 5, 370, 1960; A. J. Freeman,
R. E. Watson. Phys. Rev. Lett., 5, 498, 1960.

SUBMITTED: July 17, 1961

Card 4/4

BERODICH, Y. D., KUMAROV, A. K., FILIN, V. Ya., Golub, A. P., NEMENOV, H. G.,
MERLOZ, N. K., and SANDIKOV, B. H.

"Critical current for Nb-Zr ribbons in external magnetic field."

report to be submitted for the 8th Intl. Conf. on Low Temperature Physics (IUTAP)
London, England, 16-22 Sep 62.

SAMOYLOV, B. N., SKLYAREVSKIY, V. V. and GOROBCHENKO, V. D.

"The sign of the local magnetic field on nuclei of gold dissolved in iron and nickel"

report to be submitted for the 8th Intl. Conf. on Low Temperature Physics (IUPAP)
London, England, 16-22 Sep62

SAMOYLOV, B. N., STEPANOV, YE. P., SKYLAREVSKIY, V. V., AND ALESHIN, K. P.,
GOROBCHENKO, V. D., and LUKASHEVICH, I. I.,

"Unsplit Absorption line of Dy^{161} of Natural Width in Dy_2O_3 at $t = 500^\circ C$,"

report presented at the 3rd Intl. Conf. on the Mossbauer Effect, Cornell Univ.,
New York, 4-7 Sep 63

BORODICH, V.D.; GOLUB', A.P.; KOMBAROV, A.K.; KREMELEV, M.G.; MOROZ, N.K.;
SAMOYLOV, B.N.; FIL'KIN, V.Ya.

Critical currents of Nb-Zr alloys in an external magnetic
field. Zhur. eksp. i teor. fiz. 44 no.1:110-115 Ja '63.
(MIRA 16:5)

(Niobium-Zirconium alloys—Electric properties)
(Magnetic fields)

L 16552-55 EWT(1)/EEC(t) Feb ESD(t)/ESD(gs)/AEDC(a)/SSD/AFWL/AS(41)-2/
RJP(c)

ACCESSION NR: AP4044667 S/0120/64/C00/004/0043/0049

AUTHOR: Aleshin, K. P.; Lukashevich, I. I.; Samoylov, R. H.;
Sklzarevskiy, V. V.; Stepanov, Ye. P.; Filippov, N. I.

TITLE: System for investigating the Mossbauer effect

SOURCE: Priory* i tekhnika eksperimenta, no. 4, 1964, 43-49

TOPIC TAGS: Mossbauer effect, Mossbauer effect investigation, vi-
brator, aerodynamic vibrator, Mossbauer spectrum, gamma ray, gamma
ray source

ABSTRACT: The proposed system, in which motion is produced by a
special electrodynamic vibrator at a constant velocity of up to
~ 8 cm/sec, was designed for investigating the Mossbauer effect. The
low amplitude of source motion (1-2 mm) makes it possible to conduct
both the absorption and the dispersion measurements of the Mossbauer
spectra. The electrodynamic vibrator, which is described in detail,
provides for a constant velocity within $\pm 1\%$. The vibrator makes it
possible to conduct measurements at frequencies of up to 20 cps. The
maximum velocity of 8 cm/sec is achieved at 16 cps. The electronic
part of the system provides for registration by means of a NaI (Tl)
crystal and a photomultiplier of γ -quanta passing through a resonant
absorber. From the photomultiplier the pulses are applied to a single-
channel analyzer whose window is directed toward the photopeak of the

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ACCESSION NR: AP4044667

Y-rays investigated. The equipment is designed so as to make it possible to change the measurement time easily and to pass from one operating frequency to another. The resolution time of the registration channel is ~ 1 μ sec. The characteristics and velocity calibration of the system were studied by measuring the absorption spectrum of Fe^{57} Y-rays with an energy of 14.4 kev. The source was Co^{57} , and the absorber was Fe^{57}O_3 . Measurements of the line drift have shown that after heating the system for 2 hr, the drift in velocity does not exceed $\pm 0.5\%$ for 8 hr of operation. Orig. art. has: 6 figures.

ASSOCIATION: none

SUBMITTED: 23Jul63

ENCL: 00

SUB CODE: E4, EC, NF

NO REF SOV: 003

OTHER: 003

Card 2/2

L 1848-66 EWT(1)/EWT(m)/EPF(n)-2/EWA(d)/EWP(t)/EWP(k)/EWP(z)/EWP(b)/
EWA(c) IJP(c) GG/JD/WW/HW/JG
ACCESSION NR: AT5022418 UR/3136/64/000/675/0001/0018

AUTHOR: Kremlev, M. G.; Samoylov, B. N.; Skulachenko, S. S.

TITLE: Device for studying local critical parameters of long sections of superconducting wire

SOURCE: Moscow. Institut atomnoy energii. Doklady, IAE-675, 1964. Ustanovka dlya issledovaniya lokal'nykh kriticheskikh parametrov bol'skikh dlin sverkhprovodyashchey provoloki, 1-18

TOPIC TAGS: superconducting alloy, niobium alloy, zirconium alloy, external magnetic field, induced current

ABSTRACT: The device described is designed for studying the uniformity of values of the critical currents in long (up to 15 m) sections of superconducting wire, measured upon application of a local external magnetic field of up to 40 kOe to a small part of the wire. A detailed description of the parts and operation of the device is given. The device was used to study several sections of a superconducting wire composed essentially of a 50:50 Nb-Zr alloy, which after cold drawing was subjected to an additional vacuum heat treatment. The critical current was found to change by a factor of 2 over distances of a few meters. Besides these comparatively slow

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ACCESSION NR: AT5022418

variations in critical current, fairly substantial (up to 30%) local declines of the current were observed at distances of a few millimeters. "The authors thank Academician I. K. Kikoin for steady interest in the work and valuable comments, N. V. Razzhivin, N. I. Filippov, and D. I. Dolgiy for assistance in the preparation of the device and for performing the experiments, and also V. A. Drozdov, V. D. Sheffer, and N. Ye. Yukovich for supplying the liquid helium." Orig. art. has: 7 figures.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MM, IE

NO REF SOV: 000

OTHER: 004

Card

L 5326-66 EWT(l)/EWT(m)/T/EWP(t)/EWP(h)/EWA(c) IJP(c) JD/JW/GG
 ACCESSION NR: AP5021109 UR/0056/65/049/002/0456/0458
 AUTHORS: Pañova, G. Kh.; ^{44.55} Samoylov, B. N. ^{44.55}
 TITLE: Experimental detection of an anomaly in the specific heat of
 a metal with heavy impurity atoms

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49,
 no. 2, 1965, 456-458

TOPIC TAGS: specific heat, magnesium, solid solution, lead containing
 alloy, crystal impurity, Debye temperature

ABSTRACT: An anomaly in the behavior of the specific heat, predicted
 in general form by Yu. Kagan and Ya. Iosilevskiy (ZhETF v. 45, 819,
 1963) for crystals containing heavy impurity atoms, was detected
 experimentally in the alloy MgPb (2.8 atomic per cent Pb). The
 measurements were carried out on polycrystalline samples of pure Mg
 and of the alloy, which was a substitutional solid solution with
 hexagonal lattice, similar in its parameters to the Mg lattice. The
 measurements were made on cylindrical samples 50 mm in diameter and

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ACCESSION NR: AP5021109

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50 cm long, using an adiabatic calorimeter. The measurement procedure is described in detail. The measurements were made in the temperature range 1.2 -- 20K. From a study of the obtained plots of the specific heat against the temperature, the authors calculate the coefficients of the electronic specific heat and the Debye temperature which are found to be respectively 1.31 millijoule/mole-

deg² and 311 ± 10 K for Mg and 1.11 millijoule/mole-deg² for MgPb. A plot of the relative specific heat against the ratio of the temperature to the Debye temperature shows the former to have a maximum near 10.6K. The results thus confirm the effect observed by Kagan and Iosilevskiy. Small additions of a heavy impurity in a light lattice changed the specific heat of the crystal lattice very strongly, with 2.8 atomic per cent of Pb leading to a doubling of the specific heat at 10.6K. The authors thank Yu. Kagan^{44,55} and N. A. Chernoplekov^{44,55} for useful discussions and continuous interest in the work, M. N. Andriyanov^{44,55}, V. A. Zinov'iyev^{44,55}, V. I. Kutaytsev^{44,55} and N. T. Chebotarev^{44,55} for preparing and analyzing the samples, N. P. Orlov and D. N. Astrov^{44,55} for supplying the graduated semiconductor thermometer, V. Ye. Keylin^{44,55}

Card 2/3

L 5326-66

ACCESSION NR: AP5021109

for help in the construction of the instrument, and V. G. Ovchinnikov
for help with the experiments.' Orig. art. has: 2 figures and 2 $\frac{1}{55}$ -
formulas.

ASSOCIATION: None

SUBMITTED: 25Mar65

ENCL: 00

SUB CODE: SS, TD

NR REF SOV: 002

OTHER: 000

Card 3/3 *md*

SOV/124-57-8-9520

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 8, p 135 (USSR)

AUTHOR: Samoylov, B. N.

TITLE: Frame Analysis Based on Influence Coefficients (Raschet ram po koefitsiyentam vliyaniya)

PERIODICAL: Tr. Kuybyshevsk. inzh.-stroit. in-t, 1957, Nr 4, pp 65-71

ABSTRACT: Bibliographic entry

Card 1/1

AKRIDIN, Dmitriy Vladimirovich, starshiy prepodavatel'; GALKANOVA, Nina Dmitriyevna, assistant; GVOZDOVSKIY, Viktor Il'ich, assistant; GLUKHOVSKOV, Aleksandr Petrovich, inzh.; SAMOYLOV, Boris Nikolayevich, dotsent, kand.tekhn.nauk; YAKUBOVSKIY, Boris Vasil'yevich, prof. Prinimali uchastiye: POLONSKIY, A.V., assistant; LEONT'YEV, G.V., assistant; BITYUTSKIY, A.I., assistant; DAVYDOV, S.S., doktor tekhn.nauk, prof., red.; MIKHAYLOV, K.V., kand.tekhn.nauk, nauchnyy red.; BUDARINA, E.M., red. izd-va; GARNUKHIN, Ye.K., tekhn. red.

[Prestressed concrete abroad; materials] P redvarietel'no napriazhennyi zhelezobeton za rubezhom; materialy. Pod red. S.S. Davydova i B.V. Iakubovskogo. Moskva, Gos. izd-vo lit-ry po stroit., arkhitekt. i stroit. materialam, 1961. 343 p. (MIRA 14:10)

1. International Congress of Prestressed Concrete. 3rd, Berlin, 1958.
 2. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Davydov). 3. Kafedra zhelezobetonnykh i kamennykh konstruktsiy Kuybyshevskogo inzhenerno-stroitel'nogo instituta i chleny Kuybyshev-zhelezobetonu Akademii stroitel'stva i arkhitektury SSSR (for Akridin, Galkanova, Gvozдовskiy, Glukhovskov, Samoylov, Yakubovskiy)
- (Prestressed concrete)

YAKUBOVSKIY, B.V., prof., red.; SAMOYLOV, B.N., dots., kand. tekhn.
nauk, red.; PETROPOL'SKAYA, N.I., red.; DURASOVA, V.M.,
tekhn. red.

[Reinforced concrete structures; experimental and theoretical
studies] Zhelezobetonnye konstruksii; eksperimental'no-
teoreticheskie issledovaniia. Sbornik statei pod red. B.V.
Iakubovskogo, B.N.Samoilova. Kuibyshev, Kuibyshevskoe knizhnoe
izd-vo, 1963. 20. p. (MIRA 16:8)

1. Kuybyshev. Inzhenerno-stroitel'nyy institut.
(Reinforced concrete construction)

STAVRAKI, L.N.; YEPANCHINTSEVA, I.A.; BELYANKIN, F.P., akademik,
retsenzent; VAYNBERG, D.V., prof., doktor tekhn. nauk,
retsenzent; SAMOYLOV, B.N., red.

[Simple theory for the calculation of rods under an
extended load] Prosteishaya teoriya rascheta sterzhnei na
prostranstvennuu nagruzku; uchebnoe posobie dlia studentov.
Kuibyshev, Kuibyshevskii inzhenerno-stroitel'nyi in-t im.
A.I.Mikoiانا, 1963. 54 p. (MIRA 17:7)

1. Akademiya nauk Ukr.SSR (for Belyankin).

SAMOYLOV, B.N., dots.; BITYUTSKIY, A.I., inzh.; YAKOVIEVA, M.V.,
kand. tekhn. nauk, red.

[Calculation of suspension and guy supported roofs; a
textbook for course and diploma projects for students
majoring in "Industrial Construction and Civil Engineer-
ing"] Raschet visiachikh i vantovykh pokrytii; uchebno-
posobie dlia kursovogo i diplomnogo proektirovaniia stu-
dentov spetsial'nosti "Promyshlennoe i grazhdanskoe
stroitel'stvo." Kuibyshev, Jiiyshevskii inzhenerno-
stroitel'nyi in-t, 1964. 89 p. (MIRA 18:4)

ACC NR: AP7007680

SOURCE CODE: UR/0386/66/003/002/0081/0085

AUTHOR: Lukashevich, I. I.; Sklyarevskii, V.V.; Aleshin, K.P.; Samoylov, B. N.; Stepanov, Ye. P.; Filippov, N. I.

ORG: none

TITLE: Mossbauer effect on Dy sup 161 impurity nuclei in metallic gadolinium

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu, v. 3, no. 2, 1966, 81-85

TOPIC TAGS: dysprosium, gadolinium, Mossbauer effect, Mossbauer spectrum, cryostat, gamma spectrometer

ABSTRACT: Irradiation of metallic gadolinium in a reactor ($97\% \text{Gd}^{160}$) gives rise to the reaction $\text{Gd}^{160}(n\gamma)\text{Gd}^{161}$ 3.7 min , Tb^{161} , and the decay of the Tb^{161} causes emission of γ rays of Dy^{161} . The authors investigated the Mossbauer spectra of such a source, constituting in fact Dy^{161} impurity nuclei in a gadolinium lattice. The magnetic properties of the gadolinium matrix were investigated by studying the hyperfine splitting of the γ rays of these Dy^{161} nuclei.

The absorber used was polycrystalline Dy_2O_3 (40 mg/cm^2 , $90\% \text{Dy}^{161}$). At $T = 300^\circ\text{K}$, the $\text{Dy}_2^{161}\text{O}_3$ has a "thick" absorption line ($\sim 1 \text{ cm/sec}$, $\Gamma_{\text{nat}} = 0.02 \text{ cm/sec}$), which is suitable, however, for the study of large magnetic hyperfine splittings of the source ($\sim 25 \text{ cm/sec}$).

A Mossbauer spectrometer was used with a permanent-magnet vibrator, operating in

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UDC: none

ACC NR: AP7007680

At $T = 5^\circ\text{K}$ the spectrum is the usual hyperfine splitting spectrum of Dy^{161} , consisting of 14 lines (not all lines are resolved). The magnitude of the magnetic splitting corresponds to a field $\sim 7.3 \times 10^6$ Oe on the Dy nuclei. At $T = 16^\circ\text{K}$ the number of lines increases, and at $T = 30^\circ\text{K}$ it assumes the previous value, but the relative intensity of the central peak increases sharply compared with the spectrum at 5°K . With further rise in temperature the magnetic splitting decreases gradually and finally vanishes near the Curie point of gadolinium.

This behavior of the spectra can be explained as follows. At $T = 5^\circ\text{K}$ there are two different systems of lines (two different spectra) with approximately identical hyperfine splitting. With increasing temperature, the magnetic splitting of one of these spectra decreases rapidly and vanishes at $T = 30^\circ\text{K}$. The lines of the spectra are crowded together and enter the central peak, thus increasing its intensity. Measurements of individual spectral lines at $T = 7.5$ and 10°K have made it possible to trace the broadening and the splitting of the spectral lines at 5°K . In addition, we measured the individual lines of the spectrum at $T = 5^\circ\text{K}$ with an absorber heated to $T = 800^\circ\text{K}$ and having a narrower line than at $T = 300^\circ\text{K}$. These measurements have shown that the spectral lines at 5°K are doublets, i.e., this spectrum consists of two different spectra with somewhat differing hyperfine splittings. Two systems of hyperfine splittings were found to correspond to two different states of the electron shell of the Dy ions, produced in the β decay of Tb^{161} . A distinctive feature of this case is that it is observed in a metal, where the relaxation times of the electron shell should seemingly be small. Figure 2 shows the temperature dependence of the

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ACC NR: AP7007680

fields on the Dy^{161} nuclei, corresponding to these two systems of hyperfine splitting. For $T = 200$ and $273^\circ K$, H_{nuc} was obtained from the position of the outermost lines of the spectrum. The $H_{nuc}(T)$ for the second system vanishes near the Curie point of gadolinium. The variation of $H_{nuc}(T)$ for the first system apparently shows that the corresponding Dy ions behave like paramagnetic ions in gadolinium. Reduction of the spectra of Fig. 1 yielded for the ratio of the magnetic and quadrupole moments of the first-excited and ground states values $\mu_x/\mu_0 = -1.2 \pm 0.1$ ($\mu_0 = -0.37 \pm 0.05$), $Q_x/Q_0 = 0.85 \pm 0.1$. The quadrupole splittings $W = (1/4)eqQ_0$ at temperatures 30 and $80^\circ K$ turned out to be 660 ± 60 and 530 ± 50 Mcs. The authors thank I. B. Filupov for help; N. E. Yukovich, V. A. Drozdov, and V. S. Sheffer for supplying the liquid helium; Yu. Kagan and A. M. Afanas'yev for discussion of the results; and V. Ye. Keylin for help in constructing the cryostat. Orig. art. has: 2 figures.

SUB CODE: 20 / SUBM DATE: 29Nov65 / ORIG REF: 001 /
OTH REF: 004

Card 4/4

SAMOYLOV, D., kand. tekhn. nauk; FATEYEV, I., inzh.

Let's give better satisfaction to the requirements of passengers.
Zhil.-kom. khoz. 12 no.3:26-27 Mr '62.

(MIRA 15:10)

(City traffic)

SAMOYLOV, D.S.

BARKOVA, Ye. A.; BLATNOV, M.D.; KUDRYAVTSEV, O.K.; ~~SAMOYLOV, D.S.~~
MINASYAN, Ye.A., redaktor; ZHOROV, D.M., tekhnicheskij redaktor

[Principles of the organization of the movement of city passenger
transportation; a practical manual] Osnovy organizatsii dvizheniya
gorodskogo passazhirskogo transporta; metodicheskoe rukovodstvo.
Moskva, Izd-vo M-va kommun. khoz. RSFSR, 1956. 270 p. (MLRA 10:4)
(Local transit)